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(54) Title: ANTIFUNGAL PROTEINS, DNA CODING THEREFORE, AND HOSTS INCORPORATING SAME

(57) Abstract

The present invention provides an isolated protein obtainable from a plant source which has antifungal activity, specifically anti-*Phytophthora* activity and/or anti-*Pythium* activity and a molecular weight of about 55-65 kDa as judged by SDS PAGE-electrophoresis, an isolated DNA sequence comprising an open reading frame capable of encoding a protein according to the invention, preferably characterised in that it comprises an open reading frame which is capable of encoding a protein depicted in SEQ ID NO. 16, SEQ ID NO. 57, SEQ ID NO. 70, SEQ ID NO. 72 or SEQ ID NO. 74 or muteins thereof, and DNA capable of hybridising therewith under stringent conditions. The invention further comprises plants incorporating chimeric DNA capable of encoding a protein according to the invention, and wherein the protein is expressed. Also shown is the carbohydrate and preferably hexose oxidating activity of said protein. Also methods are provided for combating fungi, especially *Phytophthora* and *Pythium* species, using a protein or a host cell capable of producing the protein.

FR / fungal / resistance / hexose / oxidase / MS 59 / WL 64 / Phytophthora / Pythium /